**PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)	Customer No. 37003
Panos PAPANASTASIOU	)	Confirmation No. 5010
Application No: 10/009,505	)	Group Art Unit: 2856
Filing Date: November 18, 2002 Fitzgerald	)	Examiner: John P.
112501414	)	
Title: CAVITY STABILITY PREDICTION	)	Docket Nº: US 57.0328
METHOD FOR WELLBORES	)	

## **EXPRESS MAIL CERTIFICATE UNDER 37 CFR §1.10**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Express Mail Label Number: EV 058372561 US Date of Deposit: January 26, 2006

I hereby certify that the attached paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

> (Signature) (Print Name)

Ruth A. Schreiber

Schlumberger-Doll Research Patent Department 36 Old Quarry Road Ridgefield, Connecticut 06877-4108 (203) 431-5000

IN THE UNITED STATES PATE	ENT AND TRADEMARK OFFICE
re Application of	) Customer No. 37003
Panos PAPANASTASIOU	) Confirmation No. 5010
Application No: 10/009,505	) Group Art Unit: 2856
Filing Date: November 18, 2002	) Examiner: John P. Fitzgerald
Title: CAVITY STABILITY PREDICTION METHOD FOR WELLBORES	) Docket N°: US 57.0328

### **STATUS INQUIRY**

)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This patent application has been on file since November 18, 2002. The Issue Fee was filed on February 1, 2005 with a Communication requesting a countersigned copy of Applicant's first PTO-1449 form submitted on February 6, 2002. Copies of these two documents with the return postcard are provided for your convenience in tracking this application. Also enclosed is a copy of Applicant's Deposit Account Statement with the issue fee posted to the account on February 4, 2005.

Applicant made a phone call to the Publication Branch Customer Service on November 14<sup>th</sup>. We were advised that this application was in a "Trouble Shooting" area and we were told to follow-up with another call in a month. On January 12, 2006, Applicant made a second call to the Publication Branch and were told to contact the Examiner. Applicant called the Examiner on January 12, 2006; and Examiner Fitzgerald confirmed that the Issue Fee was paid. but was unsure of the current status of the application. We were advised to continue our communications to locate this application.

Attorney Docket No. US 57.0328-WO Page 2 of 2

Status Inquiry

Paper Date: January 26, 2006

Please advise of the status of this patent application and when Applicant can expect the Issue Notification with the grant number and grant date. A duplicate copy of this letter with a self-addressed envelope is enclosed.

Respectfully submitted,

Jady Lynn DeStefanis Registration N° 44,653

Schlumberger-Doll Research 36 Old Quarry Road Ridgefield, Connecticut 06877-4108

Phone: (203) 431-5505 Fax: (203) 431-5640 Date: January 26, 2006





## **Deposit Account Statement**

**Requested Statement Month:** 

February 2005

**Deposit Account Number:** 

190615

Name:

SCHLUMBERGER-DOLL RESEARCH

Attention:

PATENT DEPARTMENT

Address:

36 OLD QUARRY ROAD

City:

**RIDGEFIELD** 

State:

CT

Zip:

06877-4108

Country:

UNITED STATES OF AMERICA

DATE SEQ	POSTING REF TXT	ATTORNEY DOCKET NBR	FEE CODE	AMT	BAL
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CUSTOMER NO. 37003

57.0328

APPLICANT: PAPANASTASIOU

APPL NO: 10/009,505

FILED: November 18, 2002

CAVITY STABILITY PREDICTION METHOD FOR WELLBORES TITLE:

PAPERS: Submission of Issue Fee

 $\begin{array}{lll} \textbf{PTOL-85 Form in duplicate} \\ \textbf{Communication} \end{array}$ 

PAPER DATE: February 1, 2005



#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

§

§

In re Application of

**PAPANASTASIOU** 

Application No: 10/009,505

Filed: November 18, 2002

Title: CAVITY STABILITY PREDICTION METHOD

Lorraine Ronnlund

FOR WELLBORES

**CUSTOMER NUMBER: 37003** 

Group Art Unit: 2856

Examiner: FITZGERALD, JOHN P.

Attorney Docket No.: 57.0328

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: MS Issue Fee,

Hon. Commissioner for Patents, P. Q. Box 1450, Alexandria, VA 22313-1450.

February 1, 2005

Date

#### SUBMISSION OF ISSUE FEE

Mail Stop ISSUE FEE
Honorable Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the Issue Fee Transmittal mailed 11/02/2004, copies of which are enclosed, the Commissioner is authorized to charge **Deposit Account No. 19-0615** the fee of \$1,403.00 for the issuance of the above-identified application, and one (1) copy of the issued patent.

In the event this fee is incorrect, the Commissioner is authorized to further charge/credit the above Deposit Account the requisite amount. Two copies of this sheet are provided.

Respectfully submitted

William B. Batzer

Registration No. 37,088

SCHLUMBERGER-DOLL RESEARCH Intellectual Property Law Department 36 Old Quarry Road Ridgefield, Connecticut 06877-4108 (203) 431-5506

DATE: FEBRUARY 1, 2005

Complete and send th	. (0, 1,2)	applicable for	or <u>F</u>	Co P.0 Al <u>Cax</u> (70	mmissione O. Box 1450 exandria, Virgi 3) 746-4000			
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Old Quarry Road Ridgefield, CT 068				Train train	Lorraine Ro	10 (703) 746-	FEE address 4000, on the d	g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.  (Depositor's name)
					February 1,	2005	eerle	(Signature)
APPLICATION NO.	FILING DATE		FIRST NAME	D INVENTO	₹	ATTORNEY I	DOCKET NO.	CONFIRMATION NO.
. 10/009,505	11/18/2002		Panos Pap	anastasiou		US 57	7.0328	5010
ITLE OF INVENTION: C	AVITY STABILITY PREC	ICTION METHO	D FOR WELL	BORES	·	,		
APPLN. TYPE	SMALL ENTITY	ISSUE F	EE	PUBL	ICATION FEE	TOTAL FI	EE(S) DUE	DATE DUE
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FITZGERA	LD, JOHN P	2856	i	0	3-152590			
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PLEASE NOTE: Unless recordation as set forth in (A) NAME OF ASSIGN	an assignee is identified b 137 CFR 3.11. Completion EE	elow, no assignee of this form is NO' (E	data will app T a substitute	ear on the for filing an	patent. If an assign assignment.	UNTRY)		document has been filed for
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a. Applicant claims SN he Director of the USPTO	(from status indicated above MALL ENTITY status. See is requested to apply the Issuablication Fee (if required)	37 CFR 1.27.	tion Fee (if an	y) or to re-	nger claiming SMA apply any previous the applicant; a reg	sly paid issue for	ee to the applic	
***	ords of the United States Pate	ent and I rademark	Office.		Data Fé	ebruary	1. 2005	
Authorized Signature  Typed or printed name	William B. Ba	atzer		·	DateF		7,088	
n application. Confidentiali ibmitting the completed ap is form and/or suggestions ox 1450, Alexandria, Virgi lexandria, Virginia 22313-	ty is governed by 35 U.S.C. plication form to the USPT for reducing this burden, should be 22313-1450. DO NOT	122 and 37 CFR O. Time will vary ould be sent to the SEND FEES OR C	1.14. This col depending up Chief Inform COMPLETED	lection is e on the ind nation Offic FORMS	stimated to take 12 vidual case. Any c cer, U.S. Patent and O THIS ADDRES	minutes to co comments on t d Trademark C SS. SEND TO:	mplete, includi he amount of t office, U.S. Dep Commissioner	nd by the USPTO to processing gathering, preparing, and ime you require to complete partment of Commerce, P.O. for Patents, P.O. Box 1450

**PATENT** 

## IN THE UNITED STA<u>TE</u>S PATENT AND TRADEMARK OFFICE

In re Application of	) Oroup Art Unit: 2856
Panos PAPANASTASIOU	)
Serial N°: 10/009,505	) ) Examiner: Fitzgerald, John O.
Filed: December 5, 2001	)
For: CAVITY STABILITY PREDICTION METHOD FOR WELLBORES	) ) Attorney Docket N°: ) 57.0328
I hereby certify that this corres Service on the date shown below	Certificate of Mailing  pondence is being deposited with the United States Postal  with sufficient postage as First Class Mail in an envelope

addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

De e o a le o o a k

#### COMMUNICATION

Lorraine Ronnlund

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In reviewing the case file, Applicants have observed that a countersigned copy of Applicants' first PTO-1449 form, submitted on February 6, 2002, was not returned with the Notice of Allowance and Issue Fee(s) Due dated November 2, 2004.

Applicants respectfully request that the Examiner confirm that the references cited in this IDS have been made of record by returning a countersigned copy of Applicants' PTO-1449 form, a copy of which is attached for the Examiner's convenience. A copy of the return postcard indicating the USPTO's receipt of this IDS is also attached.

Respectfully submitted,

William B. Batzer

Registration N° 37,088

Schlumberger-Doll Research 36 Old Ouarry Road Ridgefield, Connecticut 06877-4108 (203) 431-5506 Date: February 1, 2005



57.0328-WO

FEB 1 5 2002

APPLICANT(S): Panos PAPANASTASIOU

APPL. NO.:

10/009,505

FILING DATE:

December 5, 2001

TITLE:

CAVITY STABILITY PREDICTION MERCED FOR

WELLBORES

PAPERS:

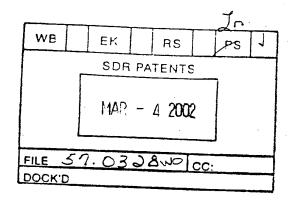
Information Disclosure Statement (IDS);

Form PTO-1449; references

JUD 7 Rec'd POTYPTO 1 5 FEB 2002

PAPER DATE:

FEBRUARY 6, 2002



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	) )
Panos PAPANASTASIOU	) Group Art Unit:
Application N°: 10/009,505	) ) Examiner:
Filed: December 5, 2001	)
Title: CAVITY STABILITY PREDICTION METHOD FOR WELLBORES	) Attorney Docket No.: ) 57.0328-WO )

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Lorraine Ronnlund

February 6, 2002

# INFORMATION DISCLOSURE STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §1.56, 1.97 and 1.98, the Applicants wish to bring the reference materials listed in the attached Form PTO-1449 to the attention of the U. S. Patent and Trademark Office. Copies of the references are provided for the Examiner's convenience.

No representation is made or intended that a complete and exhaustive prior art search has been made, or that no better references than those set forth below are available. Furthermore, this Statement does not constitute an admission that these references are properly citable against the present application as prior art.

It is respectfully requested that these references be considered by the Examiner and formally made of record in this case.

Respectfully submitted,

William B. Batzer Registration N° 37,088

Schlumberger-Doll Research 36 Old Quarry Road Ridgefield, Connecticut 06877-4108 (203) 431-5506

Date: February 6, 2002





**FORM PTO-1449** 

U.S. Department of Commerce Patent and Trademark Office

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

ATTY. DOCKET NO: 57.0328-WO

O: **SERIAL NO.:** 10/009,505

APPLICANT:

EXAMINER:

Panos PAPANASTASIOU

FILING DATE:
December 5, 2001

**GROUP:** 

(Use several sheets if necessary)

IAP27

U.S. PAROTT DOCUMENTS

Exam Init.	Document Number	Date	Name	Class	Sub- class	Filing date if appropriate
	3,907,034	09/23/75	Suman, Jr.	166	250	09/23/74
	4,862,991	09/05/89	Hoyle et al.	181	106	09/13/88
	4,881,208	11/14/89	Liu	367	35	10/27/88
	4,951,267	08/21/90	Chang et al.	367	31	10/15/86
	5,497,658	03/12/96	Fletcher et al.	- 73	151	03/25/94
	5,619,475	04/08/97	Winkler	367	27	11/09/95
	5,789,669	08/04/98	Flaum	73	152.51	08/13/97
	5,838,633	11/17/98	Sinha	367	31	01/27/97
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#### FOREIGN PATENT DOCUMENTS

Exam	Document				Sub-	Trans	lation
Init.	Number	Date	Country	Class	class	Yes	No
	GB2293652A	14.08.95	U.K.	6	G01V 1/48		
				1			
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- N. Morita. 'Field and Laboratory Verifications of Sand Production Prediction Models'. 7-10 Feb. 1994. SPE 27341, pp. 19-28.
- J. Zhang et al. "Mechanical Strength of Reservoir Materials: Key Information for Sand Prediction". SPE 49134, 27-30 Sept. 1998, pp. 423-430.
- H. Asheim. "Determination of Perforation Schemes to Control Production and Injection Profiles Along Horizontal Wells". SPE, March 1997, pp. 13-17.
- C. Presles et al. "A Sand Failure Test can Cut Both Completion Costs and the Number of Development Wells". SPE 38186, March 1997, pp. 13-17.
- F. Sanfilippo et al. "Sand Production: from Prediction to Management". SPE 38185, (1997), pp. 389-398.
- J. Tronvoll et al. "Sand Production: Mechanical Failure or Hydrodynamic Erosion?" Int. J. Rock Mech. & Min. Sci., Vol 34, No.3/4, Paper No. 291, (1997), pp. 1-11.
- A. Skjaerstein et al. 'Hydrodynamic Erosion: A Potential Mechanism of Sand Production in Weak Sandstones'. Int. J. Rock Mech. & Min. Sci., Vol. 34, No. 3-4, Paper No. 292 (1997), pp. 1-20.

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	,	Dev. in Geotech. Eng. 53 (1990), pp. 36-39.
		W. F. Chen et al. "Non-linear Analysis in Soil Mechanics: Theory and Implementation"
		R. Risnes et al. "Sand Stresses Around a Wellbore". SPE 9650 (1982), pp. 709-720.
		P. A. Fletcher. "Optimizing Hydraulic Fracture Length to Prevent Formation Failure in Oil and Gas Reservoirs". Rock Mechanics (1995), pp. 293-298.
	<u> </u>	Mexico Case Studies". SPE 24797 (1992), pp. 317-324.
		J. Weingarten. 'Prediction of Sand Production in Gas Wells: Methods and Gulf of
		J. Tronvoll et al. 'Perforation Cavity Stability: Investigation of Failure Mechanisms'. Geotech. Eng. of Hard Soils-Soft Rocks (1993), pp. 1687-1693
		E. Papamichos et al. "Size Dependency of Castlegate and Berea Sandstone Hollow-Cylinder Strength on the Basis of Bifurcation Theory". Rock Mechanics (1995), pp. 301-306.
·		Rocks". Eurock '94, (1994) pp. 13-20.
•		R. A. Plumb. "Influence of Composition and Texture on the Failure Properties of Clastic
-		E. Fjaer et al. 'Petroleum Related Rock Mechanics'. Elsevier (1992). pp. 109-134.
	· · ·	and Field Evidence". SPE 38806 (1997), pp. 565-575.  J. Bear. "Dynamics of Fluids in Porous Media". Elsevier (1988), pp. 165-167.
		A. Skjaerstein et al. 'Effect of Water Breakthrough on Sand Production: Experimental
		R. M. O'Connor et al. 'Discrete Element Modeling of Sand Production'. Int. J. Rock Mech. Min. Sci., Vol. 34, No. 3/4, Paper No. 231 (1997), pp. 1-19.
		34, No. 3/4, Paper No. 323 (1997), pp. 1-19.
		(1997), pp. 1-11.  H. Vaziri. "Physical Modeling of Sand Production". Int. J. Rock Mech. & Min. Sci., Vol
		Perforation Cavity". Int. J. Rock Mech. & Min. Sci., Vol. 34, No. 3/4, Paper No. 293

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant